

AMENDMENT No. 103

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The following is the Syllabus in Practical Geology for the I.Sc. and B.Sc. Pass and Honours Courses (pages 182, 305 and 328 of the University Calendar, Vol. I for 1947-48).

SYLLABUS IN PRACTICAL GEOLOGY FOR THE I.Sc. COURSE.

Crystallography.

Classification of the crystals into six systems and the study of the holohedral forms of the six systems with Weiss's symbols.

Mineralogy.

Minerals and their description.

1 Quartz and other forms of silica.	13	Terpentine
2 Orthoclase	14	Asbestos
3 Plagioclase	15	Talc
4 Muscovite	16	Kaolin
5 Biotite	17	Pyrites
6 Actinolite	18	Corundum
7 Hornblende	19	Hematite
8 Augite	20	Magnetite
9 Olivine	21	Limonite
10 Garnet	22	Calcite
11 Tourmaline	23	Magnesite
12 Chlorite	24	Gypsum

Petrology.

Classification of rocks into igneous, sedimentary, and metamorphic; and description in hand specimens of the following rock types:

1 Granite	14 Basalt
2 Syenite	15 Conglomerate
3 Diorite	16 Sandstone
4 Gabbro	17 Shale
5 Dunite	18 Limestone
6 Pegmatite	19 Coal
7 Felsite	20 Gneiss
8 Porphyry	21 Schist
9 Dolerite	22 Slate
10 Obsidian	23 Quartzite
11 Rhyolite	24 Marble
12 Trachyte	25 Rocks commonly found in Mysore.
13 Andesite	

Structural Geology.

Interpretation of simple geological maps and drawing of sections across them.

Palaeontology.

Examination of the following fossils with special reference to modes of fossilisation:—

- Graptolite
- Coral
- Trilobite
- Brachiopod
- Lamellibranch
- Gastropod
- Ammonite
- A few typical plant fossils of the Carboniferous.

SYLLABUS IN PRACTICAL GEOLOGY FOR THE B.Sc. (PASS) COURSE.

Morphological Crystallography.

HOLOHEDRAL FORMS.—

Models

1 Holohedral forms of all the systems	20
2 Combination of forms of the Isometric Tetragonal and Hexagonal	15
3 Combination of forms of the Orthorhombic Monoclinic and Triclinic	10

HEMIHEDRAL FORMS.—

Isometric:	(a) Gyroidal	1 Model
	(b) Pentagonal	7 Models
	(c) Tetrahedral	7 Models
Tetragonal:	(a) Trapezohedral	1 Model
	(b) Pyramidal	1 Model
	(c) Scaleno-hedral	2 Model
Orthorhombic:	(a) Sphenoidal	1 Model

Hexagonal:	(a) Trapezohedral	1 Model
	(b) Pyramidal	2 Models
	(c) Rhombohedral	12 Models

Models.

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TWINS:—

1 Four important types of twinning	4
2 Isometric (Spinel Fluorite and Iron cross Laws)	3
3 Tetragonal (Knee bend type)	1
4 Hexagonal	2
5 Orthorhombic (Aragonite, Staurolite)	2
6 Monoclinic (Carlsbad, Baveno and Manebach Gypsum)	4

CRYSTAL DRAWINGS:—

Garnet	Gypsum
Crystals: Zircon	Felspar
Corundum	Calcite
Twinned Crystals: Fluorite	Gypsum
Staurolite (2)	Felspar (Baveno)

Mineralogy for the B.Sc. Class.

ROCK FORMING MINERALS.

1 Quartz Group	21 Nepheline
2 Corundum	22 Garnet
3 Spinel	23 Olivine
4 Calcite	24 Zircon
5 Dolomite	25 Topaz
6 Magnesite	26 Kyanite
7 Siderite	27 Epidote
8 Rhodochrosite	28 Tourmaline
9 Aragonite	29 Staurolite
10 Orthoclase	30 Muscovite
11 Microcline	31 Biotite
12 Albite	32 Chlorite
13 Labradorite	33 Talc
14 Leucite	34 Kaolin
15 Hypersthene	35 Apatite
16 Augite	36 Barites
17 Tremolite	37 Gypsum
18 Hornblende	38 Fluorite
19 Asbestos	39 Halite
20 Beryl	40 Zeolite

ORES.

1 Graphite	11 Pyrrhotite
2 Realgar	12 Pyrite
3 Orpiment	13 Limonite
4 Molybdenite	14 Chromite
5 Stibnite	15 Pyrolusite
6 Galena	16 Wolframite
7 Sphalerite	17 Bauxite
8 Chalcopryite	18 Monazite
9 Azurite	19 Magnetite
10 Malachite	20 Hematite

Petrology Practical.

<i>Igneous Rocks</i>	<i>Sedimentary Rocks</i>
1 Granite	1 Breccia
2 Syenite	2 Conglomerate
3 Diorite	3 Sandstone
4 Norite	4 Grit
5 Gabbro	5 Shale
6 Dunite	6 Limestone
7 Syenite Porphyry	7 Shell limestone
8 Dolerite	8 Oolitic limestone
9 Pegmatite	
10 Rhyolite	
11 Obsidian	
12 Pitchstone	
13 Trachyte	
14 Andesite	
15 Basalt	
	<i>Metamorphic Rocks</i>
	1 Gneiss
	2 Mica schist
	3 Chlorite schist
	4 Talc-schist
	5 Phyllite
	6 Slate
	7 Marble
	8 Quartzite
	<i>Micro-Slides.</i>
<i>Igneous Rocks:</i>	
Granite	Syenite
Diorite	Gabbro

Olivine-gabbro
Syenite-porphry
Dolerite
Trachyte
Basalt

Dunite
Pegmatite
Rhyolite
Andesite
Olivine-basalt

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Sedimentary Rocks:

Sandstone
Oolite

Limestone

Metamorphic Rocks:

Gneiss
Marble

Schist (Mica, Hornblende)
Quartzite

List of Powders for Blow-Pipe Analysis.

- | | |
|--------------|--------------|
| 1 Chalcocite | 5 Pyrolusite |
| 2 Sphalerite | 6 Pyrites |
| 3 Galena | 7 Chromite |
| 4 Bauxite | 8 Magnesite |

Palæontology Practical.

INVERTEBRATES:—

- | | |
|-------------------|---|
| 1 Foraminifera: | Nummulites |
| 2 Graptolites: | Monograptus, Diplograptus |
| 3 Corals: | Calceola, Montlivoltia, Favosites, Halysites, Cyathophyllum, Zaphrentis. |
| 4 Brachiopods: | Terebratula, Productus, Spirifer, Orthis, Atrypa, Rhynchonella. |
| 5 Lamellibranchs: | Gryphea, Lima, Pecten, Trigonina, Carditis, Hippurites |
| 6 Gastropods: | Natica, Bellerophon, Turritella, Cerithium, Voluta, Physa. |
| 7 Cephalopods: | Orthoceras, Nautilus, Ceratites, Acanthoceras, Hoplites, Scaphites, Belemnites. |
| 8 Echinoderms: | Pentremites, Echinoconus, Cidarid, Micraster, Encrinurus. |
| 9 Trilobites: | Calymene, Trinucleus, Paradoxides |
| 10 Plant Fossils: | Lepidodendron, Sigillaria, Calamites, Cordaites, Sphenophyllum, Alethopteris, Pecopteris, Glossopteris, Ptilophyllum. |

(N.B.—This will be effective from the Junior classes of 1952-53).

(Letter No. E. 10538, dated 31-1-1952, from the Education Secretary to Government, Bangalore.)

By Order,

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Notification dated 8th October 1952.

No. Ex. 5-366—52-53. The following are the Special subjects or periods and Text-Books prescribed in the different branches of the course of studies for the Master's Degree Examinations of 1953:—

1. English.

Paper I:—Shakespeare.
General questions—No texts prescribed.

Paper II:—Shakespeare:
Prescribed Texts—The Sonnets, Two Gentlemen of Verona, Romeo and Juliet, Richard III, Measure for Measure, Much Ado about Nothing, Hamlet, Othello, Anthony and Cleopatra, Coriolanus, Gymbeline, Henry IV—Parts I and II.

Paper III:—The XVIII Century:

Poetry and Drama.

POPE:—The Rape of the Lock; Essay on Criticism; Epistle to Augustus; the Dunciad Book IV. Thomson; Seasons; Winter; Blake; Signs of Innocence and Songs of Experience. The Marriage of Heaven and Hell, Cowper; the Task Book II; Crabbe; The Village Ward's English poets, Volume III: Addison, Cato, Sheridan; The School for Scandal; The Rehearsal. Goldsmith, The Good Natured Man, She Stoops to Conquer and XVIII Century Plays (Everyman's Library).

Paper IV:—The XVIII Century:

Prose.

Selection from the Spectator (Clarendon Press) Swift; the Tale of a Tub; the Battle of the Books, Gulliver's Travels, The Journal to Stella, Defoe; Moll Flanders, Johnson; Preface to Shakespeare, Preface to the Dictionary, Russells, the Lives of the Pope and Gray; Selections from Johnson (Bell & Sons) Boswell; Life of Johnson; Burke, Reflections on the French Revolution, American Speeches, Letter to a Noble Lord. Gibbon; The Age of the Antonies Fielding; Tom Jones, Joseph Andrews; Sterne, Tristram Shandy. Richardson, Clarissa Harlowe Samollett; Rodrick Random. Walpole; The Castle of Otranto Goldsmith; The Vicar of Wakefield. Selected English Letters (World's Classics) Pp. 53-277.

2. Kannada.

Special Author:—'Nagachandra'.

3. Sanskrit.

Papers I and II:—Veda (Prescribed for study).

1. Siddhanta-Kaumudi.—Savara and Vaidika Prakarana.

2. Yaska-Nirukta.—Adhyaya I and Adhyaya II—I Pada.

3.—Macdonell.—Vedic Reader—Suktas: 1, 3, 5 and 7 with Sayana's Bhashya.

4. Sayana.—Upodghata to Rig-Veda.

5. Atharva-Veda; Suktas; 1. Takman (V. 22).

2. Rastrasabha, 3. Poison cure (vi. 56). The last three selections in the Vedic selections, Part II—Bombay University—H. D. Velankar.

Papers III and IV: Darsana (Vedanta) Prescribed for study.

1. Sri Bhasya of Ramanuja—Jijnasadhikarana.

2. Naiskarmasiddhi of Sureswara.

3. Vadavali.

Papers III and IV: Alankara (Prescribed for study).

1. Dhvanyaloka (whole).

2. Vyaktiviveda—I Chapter.

Papers III and IV: Vyakarana (Prescribed for study).

1. Mahabhashya.—First three Ahnikas.

2. Vakyapadiya.—I Kanda.

3. Praudhamanovama.—Karak Prakarana.

Papers III and IV: Philology (Prescribed for study).

1. Tucker.—Introduction to the Natural History of Language.

2. Jespersen.—Language.

3. Unlenbeck.—Sanskrit Phonetics.

4. Brugmann.—Morphology.

5. Gune.—An introduction to Comparative Philology.

6. Tarapurvala.—Elements of the Science of Language.

4. Urdu.

Special periods.—1. Old Urdu, 2. Middle Period.

Special Author—Quli Qutch Shah.

5. Persian.

Special Papers.—1. A critical study of sufistic Mysticism,
2. The development of Persian Odes and Mathnawi.

6. History.

Papers II and III: Special periods.

Paper II:—Indian Historical Research I—The Age of the Guptas.

Paper III:—Indian Historical Research II—The Vijayanagara Empire.

Paper IV:—A special subject; History of National Movement in India from 1858.

7. Economics.

Paper III:—Economics of Socialism.

8. Political Science.

Paper III:—International Affairs and Diplomacy.

9. Social Philosophy.

Paper IV:—Prescribed work: (1) Mill—On Utilitarianism, (2) Kautilya—Artha Sastra.